

CLAIMS

1. Electrical switching device with a switching housing designed to be fitted with at least one switching polar assembly (80) comprising two arc extinguishing splitters blocks (81,82) located on each side of a contact bridge (83) movable along a horizontal displacement axis (X), characterised in that the switching housing comprises :

- a first element (20) comprising two sidewalls (24,25), one back wall (23), one front wall (22) and a bottom (21) formed by a first horizontal face of the switching device (10), so as to form a tank with a cavity (29) that houses a first splitters block (81) of the polar switching assembly,

- a second element (30) distinct from the first element (20) and comprising two side walls (34,35), one back wall (33), one front wall (32) and a bottom (31) consisting of a second horizontal face of the switching device (10), opposite the first horizontal face, so as to form a tank with a cavity (39) that houses a second splitters block (82) of the polar switching assembly.

2. Switching device according to claim 1, characterised in that each element (20,30) of the switching housing of a multipole switching device also comprises a separation partition (26,36) between each adjacent pole fixed to the back (23,33) and front (22,32) walls and to the bottom (21,31) of said element (20,30).

3. Switching device according to claim 1 or 2, characterised in that each element (20,30) of the switching housing is composed of a single moulded part.

4. Switching device according to one of claims 1
5 to 3, characterised in that, once the first element (20) and the second element (30) have been fixed to each other, the front walls (22,32) are arranged to leave sufficient space between them to enable sliding of a pusher (78) for each pole, that will activate the
10 mobile contacts (83) of the pole.

5. Switching device according to claim 4, comprising for each pole an approximately U-shaped upstream conductor (75) carrying a fixed upstream contact (76), characterised in that the front wall (22)
15 of the first element (20) may be inserted in the U of each upstream conductor (75).

6. Switching device according to one of the above claims, characterised in that it comprises a trip system that can activate the mobile contact bridge (83)
20 of each pole of the switching device, and that comprises for each pole an approximately U-shaped downstream conductor (55) carrying a fixed downstream contact (56), the front wall (32) of the second element (30) being inserted in the U of each downstream
25 conductor (55), so as to lock the trip system in contact with the switching housing.

7. Switching device according to claim 6, characterised in that the trip system comprises a mechanical locking block (40).

8. Switching device according to claim 6 or 7, characterised in that the trip system comprises a magneto/thermal block (50).

9. Switching device according to one of the above
5 claims, characterised in that the first element (20) and the second element (30) are held to each other by click fit means (28,38).

10. Method of assembling an electrical switching device (10) according to one of the above claims,
10 characterised in that the assembling method comprises in sequence :

- an insertion step (A) to insert each polar switching assembly (80) inside the first element (20) of the switching housing,
- 15 - a hanging step (B) to hang a trip system against the first element (20),
- a fixing step (C) to fix the second element (30) of the switching housing to the first element (20) so as to simultaneously close the switching housing and
20 enable locking of the trip system.

11. Assembly method according to claim 10, characterised in that the trip system comprises an approximately U-shaped polar downstream conductor (55), the trip system being locked by inserting the front
25 wall (32) of the second element (30) inside the U of each polar downstream conductor (55).

12. Assembly method according to claim 10, characterised in that the hanging step (B) comprises a step to latch a mechanical locking block (40) to the

first element (20) then a step to latch a magneto/thermal block (50) to the mechanical locking block (40).

13. Assembly method according to claim 10,
5 characterised in that the second element (30) is fixed to the first element (20) by click fit means.

14. Assembly method according to claim 10,
characterised in that it comprises a preliminary step to insert an approximately U-shaped polar upstream
10 conductor (75), inside which the front wall (22) of the first element (20) can fit.

15. Assembly method according to claim 10,
characterised in that it comprises an additional step to fix a front face block (60) of the switching device
15 (10), on the front of the trip system.